



The STEWARD

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NEW RIVER DEDICATES LARGE TRACT

A notable benchmark during the 90th anniversary of the North Carolina state parks system was the dedication Sept. 15 of the 638-acre Bower/Darnell tract at New River State Park, the largest tract ever added to the park.

The ceremony also came 30 years after a 26.5-mile segment of the New River State Park won designation as a federal wild and scenic river, setting its course as a corridor of conservation in the mountains.

Acquisition of the tract was a partnership effort of the Bower/Darnell family, the National Committee for the New River and all three of the state's conservation trust funds – Clean Water Management, Parks and Recreation and Natural Heritage.

"It's fitting that attention should focus on New River State Park during our 90th Anniversary," said Lewis Ledford, director of the division. "The story of that state park is one of conservation, citizen involve-

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Windows on north wall of South Mountains State Park visitor center allow light, but not heat, into interior.

PARKS SYSTEM SEEKS 'GREEN' CERTIFICATION

The state parks system is ratcheting up its efforts at "building green."

For new visitor centers and some other park facilities now on the drawing board, the parks system will seek certification through the national Leadership in Energy and Environmental Design (LEED) program of the U.S. Green Building Council.

The LEED program is promoted as an industry standard for environmentally sustainable construction.

"Building green" is considered a somewhat holistic approach to design and construction that puts a priority on energy efficiency, water savings, thoughtful materials and site selection, and a healthful indoor environment.

The state parks system has been moving in that direction for years, said Bruce Garner, director of design and development for parks. Indeed, part of its mission statement is to "exemplify and encour-

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UP CLOSE AND 'PERSONNEL'

Amanda Wood is the new office assistant at Hanging Rock State Park. A graduate

of Rockingham Community College and Forsyth Technical Community College, she has

more than two years of related experience and has been a seasonal office assistant at the park since August 2004.

Daniel Schewlakow is a new park ranger at William B. Umstead State Park. He graduated from Millville Senior High School in New Jersey and Richard Stockton College in Pomona, NJ, with a bachelor's degree in biology. He has about 2 1/2 years of related experience as an environmental scientist and as a shorebird steward for the New Jersey Division of Fish & Wildlife.

Kenneth Campbell is a new maintenance mechanic at Lumber River State Park. He graduated from Fairmont High School in 2002 and attended Southeastern Community College. He has more than 2 1/2 years of related experience and formerly worked for Nick Evans Farms.

John Osbourne joined the staff of Lake Waccamaw State Park as a maintenance mechanic. He attended West Columbus High School and Southeastern Community College and brings with him more than 16 years of related experience. He is a former employee of Wal-Mart and the N.C. Department of Corrections.

Daniel Martin is a new maintenance mechanic at Eno River State Park. He attended high school in Gnadenhutten, OH, and graduated from Ohio University in Athens, Ohio with a bachelor's degree in wildlife biology in 1998. He has more than 1 1/2 years related experience and has been a seasonal employee at the park and for the Person County Parks and Recreation Department.

From The Director's Desk

Our commitment to sustainable building practices for new state parks facilities is reflected in the visitor center taking shape now at South Mountains State Park. It is both a handsome structure and thoughtfully designed.

There are sound reasons for the state parks system to take the next step toward a policy of "building green" by seeking certification from the Leadership in Energy and Environmental Design (LEED) program of the U.S. Green Building Council. It's our responsibility as a government agency, to build in a cost efficient manner. But, it's also our responsibility, as traditional stewards of the environment, to set an example in sustainability and to be innovative in our thinking.

We have made a formal commitment to sustainability in our design and development program through a staff directive that will guide the state parks system through all its projects, from simple maintenance sheds to the high-use visitor centers.

It was a great privilege to share in the dedication last month of the Bower/Darnell property at New River State Park, the largest tract ever added to the park. It's a stunning piece of property and all the more valuable since it represents such a partnership success with the family owners and with the National Committee for the New River. That conservation group had a lot to do with the park's beginnings and has been a good friend of state parks in the 30 years since.

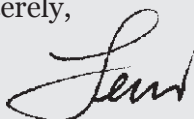
George Santucci, executive director of the nonprofit, summed it up when he remarked, "What never ceases to amaze me is the power of this river for collaboration."

We give attention in this edition of *The Steward* to the videoconference program "How to Build a Paddle Trail in Your Community." This innovative approach to building and managing high-quality trails is a collaboration of the division, N.C. State University and the N.C. Cooperative Extension Service.

The program has also attracted national attention, thanks largely to our staff in the State Trails Program and our principal partners. It was highlighted at the 2006 National Extension Tourism Conference in Burlington, VT, last month. And, a similar presentation at the 2007 Governor's Conference on Tourism has been requested.

That's great exposure for the state parks system, its trails program and the university, and we owe them all congratulations.

Sincerely,



Lewis Ledford

ment and resourcefulness, which has served as a backdrop for so many of our state parks. This particular acquisition is the result of similar commitment to conservation and partnership by the property heirs, a conservation agency and the state.”

George Santucci, executive director of the National Committee for the New River, said that the Bower/Darnell family approached the group more than a year ago about preserving the tract in its natural state.

The land lies just downstream from the park’s Wagoner Access, one of the first tracts acquired for the park and the first to be developed. The tract includes both floodplain and steep wooded slopes, and its conservation will protect 1.6 miles of river shoreline as well as 13,000 linear feet of tributaries.

“What never ceases to amaze me is the power of this river for collaboration,” Santucci said.

The amendment to the National Wild and Scenic Rivers Act designating the New River was signed in Washington by then-President Gerald Ford on Sept. 11, 1976. The signing punctuated a long struggle to keep the South Fork of the New River in a natural state in the face of Appalachian Power Co.’s plans to dam the river.

The National Committee for the New River was organized to guide that conservation effort. New River State Park, which is now 1,701 acres, was established in the wake of the battle over the dam.

The Parks and Recreation Trust Fund set aside \$2.11 million for the acquisition. That money was augmented by \$2 million from the Natural Heritage Trust Fund and \$2.27 million from the Clean Water Management Trust Fund.



Alan Briggs, left, of the Natural Heritage Trust Fund speaks with Phil Darnell and Bennett Bower-Darnell



Lewis Ledford, division director, speaks at the ceremony. At left is Supt. Mike Lambert.

Bill Holman, executive director of Clean Water Management, noted that challenges still remain for the river, and that the trust fund has been committed to helping in other ways such as preserving buffers against development and eliminating wastewater pipes into the waterway.

“We are proud to be a partner with North Carolina’s state parks,” said Bill Holman, executive director of the Clean Water Management Trust Fund. “The New River addition is one of 14 similar parks projects we have been involved in, and thanks to the support of the N.C. General Assembly, we have been able to invest more than \$22 million to help conserve North Carolina’s valuable natural resources by expanding parks across the state.”

Several members of the Bower/Darnell family attended the ceremony. Alan Briggs, a trustee for the Natural Heritage Trust Fund, told them, “Without families like yours that have that conservation ethic, and that are willing to be stewards of this land, none of this would have happened. Thank you.”

The second largest acquisition in the history of the state park was 349 acres at the confluence of the north and south forks in 1990. Also, in 2005, 110 acres of north-facing bluffs at New River Heights was acquired through the help of the National Committee for the New River and the state’s Ecosystem Enhancement Program.

A new visitor center for the park is nearing completion at the U.S. 221 Access. The development project, built with \$7.5 million from the Parks and Recreation Trust Fund, also includes an exhibit hall, group picnic shelter, campground and maintenance facilities.

Paddlers explore the Deep River in Chatham and Lee counties. Although paddle trails are becoming more popular, some issues about trail management were not being addressed.



PADDLE TRAILS

CONFERENCE SERIES YIELDS TRAIL STANDARDS

The State Trails Program of the Division of Parks and Recreation is looking at paddling in a whole new way as a result of the *How to Build a Paddle Trail in Your Community* videoconference series.

Prior to the series, paddle trails were designated by the state as recognition for having developed two or more public access areas about every 10 miles. Attention was given to identifying access areas, placing signs on the trail, developing maps and other ways of promoting these sites to the public.

The benefit of this philosophy was that people could easily find access to North Carolina's water resources. But little, if any, consideration was given to jurisdiction, ownership of adjacent land, emergency vehicle access or trail length.

The demand for paddle trail planning and development, along with the growing need to promote legal and safe paddle trails, left the state trails staff scrambling to refine this evolv-

ing program,

A chance to ease some of this concern presented itself in 2004 when the North Carolina Paddle Trails Association captured a grant for the *How to Build a Paddle Trail in Your Community* educational series.

While planning the series, it became apparent that several issues were not being addressed in the development of paddle trails.

There were liability issues. And, navigability concerns arose in the piedmont and western regions. The paddling community was diverse in its interests and had no unified voice. There was no consistency in the put-ins and take-outs. There was no system to ensure sites would be managed and maintained. There were no factors to ensure sustainability, and there was no coordination with other government agencies regarding development plans and jurisdictional issues.

Over two years, the State Trails Program staff

worked diligently with the folks at NC State University Tourism Extension to develop content. It grew from two, six-session videoconferences that addressed these issues and more.

A website (<http://www4.ncsu.edu/~cskline/index.htm>) was developed for the presentations and resource contacts.

A listserv monitored by experts from various fields and government agencies was developed as a resource for paddlers and paddle trail developers.

The group held meetings in every region to build consensus and ensure paddling issues were addressed in the educational series.

And, more than 700 people responded to an internet request to rank river basin usage so that state trails funding could be directed to areas most in need.

All this research uncovered another problem, however, related to the diverse terrains and paddling styles across the

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SESSOMS TO LEAD SINGLETARY LAKE

James Sessoms, a longtime superintendent at Lumber River State Park, has been named superintendent of Singletary Lake State Park in Bladen County. Sessoms succeeds Angelia Allcox who accepted a position as law enforcement specialist in the division.

A superintendent is the chief of operations and administration at a state park or state recreation area with wide-ranging responsibilities for staffing, training, law enforcement, visitor services, natural resource protection and environmental education.

A native of Robeson County, Sessoms returns to the park, having worked there as a senior ranger from 1986-93. He is a graduate of Littlefield High School and Southeast Com-

munity College in Lumberton and attended classes at UNC at Pembroke. He joined the state parks system in 1983 as a Park Ranger I at Goose Creek State Park in Beaufort County.



Upon leaving Singletary Lake State Park in 1993, Sessoms became the first superintendent at Lumber River State Park while it was still under development. He is an environmental educator and prescribed burn boss and holds an advanced law enforcement certificate.

He was instrumental in establishing a prescribed burn program at the park and de-

veloping new facilities at the Chalk Banks Access.

“As a native of southeastern North Carolina, James obviously has broad knowledge of the natural resource issues of the region as well as the people and the communities that the park serves,” said Lewis Ledford, director of the division, in announcing the appointment. “His experience as a superintendent will provide strong leadership at Singletary Lake.”

Singletary Lake State Park, one of the state’s oldest, was constructed by the Civilian Conservation Corps in the 1930s and is generally reserved for use by organizations. Its staff also has management responsibilities for White and Baytree lakes, including lake-shore permits. The park had 41,632 visitors in 2005.

PADDLE TRAILS

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state. Standards were needed that would allow for local management, yet ensure conformity with statewide trails planning directives.

The new standards were a collaborative effort of the State Trails Program, NC State University Tourism Extension, North Carolina Sea Grant, the Wildlife Resources Commission, the Department of Transportation, the Division of Tourism and a team of topical experts.

The standards are available at <http://www4.ncsu.edu/~cskline/index.html> and will undergo a four-month public review period.

The standards identify five levels of access sites, ranging from rustic to highly developed. The standards for paddle

“trails” align with those for the individual sites that make up the trail.

Depending on local circumstances, a community may use the standards to take on construction of one access site at a time. However, they can do this while planning a more extensive trail.

The standards will apply to the sites and trails that wish to receive designation by the North Carolina Department of Environment and Natural Resources (DENR). Only those sites sanctioned by DENR will be publicly promoted by DENR as safe and worry-free.

People will, of course, always be free to “stop and drop” anywhere the spirit moves them in their quest for paddling routes. However, they

will do so at their own risk.

In the last three years, the State Trails Program has moved to a proactive stance, with paddle trails no longer defined solely by the location of a waterway.

They can instead offer all the amenities and nuances the public expects in a land-based trail. The program has shifted from focusing on only individual sites and trails, to planning consistent, but adaptable, facilities on a statewide scale.

As a byproduct, the state trails staff has opened communication with all agencies affected by paddle trail development, and those relationships are being fostered. As a result, North Carolina will truly be a better place to paddle.

‘BUILDING GREEN’

CONTINUED FROM PAGE 1

age good stewardship” in all its work.

“I’m satisfied that we’ve been doing things all along that would qualify us for minimum-level LEED certification,” Garner said. “But until we take the test, we don’t have any certification to show for it. Now’s the time to actively pursue that.”

A new visitor center nearing completion at South Mountains State Park incorporates many features that are not only touted by the LEED program but are just good common sense.

For example, deep roof overhangs and the extensive use of glass on the building’s north side are calculated to let in more light than heat. The windows frame a fireplace and chimney faced with stone quarried from only 50 miles away in McDowell County. (That saves gasoline costs.)

Such items are on a long list of sustainable – but reasonably inexpensive – features that Asheville architects John Rogers and Craig Chen-evert designed into the project. “Building green” is largely about reexamining every detail and assumption about how things are built.



Calculated overhangs can trim cooling and heating costs.

It’s also a different way of thinking for a government agency.

“It’s identifying sustainability as a priority in a project so, as the project moves forward, that’s not the first thing to be dropped to save money. We’re just simply committed to following through on these ideas,” Garner said.

The state parks system has ample opportunity to put new sustainability ideas into practice. Garner’s eight-person design and development team currently has more than four dozen projects in the design or construction phase, everything

from modest maintenance sheds to high-profile visitor centers.

All the facilities in the system’s 33 state parks and recreation areas represent more than \$350 million in infrastructure.

LEED certification being sought for new visitor centers planned at Merchants Millpond, Fort Macon and Raven Rock state parks.

Over the years, the parks system has been cautiously implementing some cutting-edge sustainability ideas that now may be adopted on a grander scale as they become more familiar and technology is refined.

For instance, early design plans for a coastal environmental education center at Fort Macon State Park include under-floor, warm-water heating and waterless urinals. A similar heating system was installed earlier in a small toilet building at Cliffs of the Neuse State Park, and Fort Macon has been using the waterless urinals at its bath-



The visitor center at South Mountains State Park takes advantage of a north-facing slope to capture light.

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PROJECT WET PROMOTES STEWARDSHIP

By Thomas Randolph, Ranger
Mount Jefferson SNA

Recently, several state and federal agencies combined efforts to promote good stewardship of North Carolina's natural resources. Beneath clear skies at Kerr Scott Lake, citizens and environmental educators participated in Project Wet, a day of hands-on education.

Learning how to teach resource protection is at the heart of a workshop such as this. Each participant traveled the path of a drop of water through the global hydrologic cycle. Using giant dice, they discovered how to make learning hydrology fun for elementary school students.

Later, the group learned how to use pH strips, soda straws and sand in an activity that can introduce middle school students to the world of contaminant plumes and groundwater pollution.

The workshop provided credit toward North Carolina environmental education certification.

Holly Denham of the Division of Water



Federal and state agency employees jointly stage the Project WET workshops

Quality provided all of the Project Wet supplies and books. The instructors included Alex Hurt of the Division of Forest Resources and myself. Miriam Fleming of the U.S. Army Corps of Engineers provided the classroom, trails and snacks.

Everyone who attended the workshop shared ideas and gleaned practical teaching skills. Hopefully in the upcoming school year, there will be many students who benefit as well by learning about the state's precious natural resources.

'BUILDING GREEN'

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house for some years.

"At the same time, we don't want to experiment too much with public funds," Garner said. "We want to know which ideas are proven to work. We have to move more cautiously than private industry because we're dealing with public money."

All capital projects in the state parks are funded through the Parks and Recreation Trust Fund, which originates from the state's tax on real estate deed transfers. The existence of the trust fund has made it easier to build green, Garner said.

The parks system is able to budget for sustainable technology, sometimes several years before a large project goes to bid. Because dedicated funding allows for more long-term planning, a longer-term return on investment is acceptable.

Many sustainable building techniques used in state parks are really quite mundane, but can offer surprising results in cost-savings and preservation of resources.

For instance, landscaping plants are chosen and drainage systems are designed to minimize the need for fertilizers and pesticides.

Water meters on all large buildings can detect leaks and ensure that septic drain fields are not oversized, so that less land is disturbed.

Vending machines are usually "de-lamped", and the lights-off approach can save \$100 a year at each location.

Walkways, piers and picnic tables are now fashioned of molded material made of recycled wood and plastic.

The parks system has experimented with passive solar systems in recent years in

small buildings such as remote washhouses. A much larger system was incorporated into a new visitor center at Jones Lake State Park which opened last year.

Designers and general contractors are getting the message that the state is now very serious about sustainability in construction, although a few bidders try to take advantage by automatically hiking fees for "building green", Garner said. "Those that are comfortable with it, their fees are usually less."

More contractors are likely to embrace the LEED certification program once they conquer fears of the paperwork involved and realize that some type of certification is likely here to stay.

"What was once a trend is now a standard, or soon to become a standard," he said.

SPECIAL TAGS WOULD PROMOTE PARKS

Friends and supporters of North Carolina's state parks and of conservation may soon be able to publicize that support by sporting a "State Parks" license plate.

The N.C. General Assembly last summer provided for the issuance of "State Parks" plates, one of few exempted from the "First in Flight" background. A pre-application will soon be available through the Division of Parks and Recreation and on its website.

A full-background design for the plate is being developed. The design must be approved by the Division of Motor Vehicles and the State Highway Patrol.

There is a \$30 fee for the plate in addition to regular license fees of the Division of Motor Vehicles. The fee is \$60 for a personalized "State Parks" plate. The fee will be evenly

divided between North Carolina's Parks and Recreation Trust Fund and the Natural Heritage Trust Fund.

The Parks and Recreation Trust Fund supports land acquisition and capital improvements in state parks as well as a grant program for local parks and a coastal beach access program. The Natural Heritage Trust Funds supports land acquisition and inventory programs to protect species and their habitats.

"We have many partners and supporters throughout the state and this can be an opportunity for them to display their pride in North Carolina's state parks," said Lewis Ledford, director of the Division of Parks and Recreation. "It's also an opportunity for them to lend support to conservation efforts in the state in a unique way."

DENR SETS RESOURCE PROTECTION GOALS

A new emphasis on comprehensive planning for natural resource conservation that will reach across several divisions is part of a reorganization of the Department of Environment and Natural Resources (DENR) announced in September.

Richard Rogers has been appointed to the newly established post of assistant secretary for natural resources with supervisory responsibilities for the divisions of parks and recreation, forest resources, marine fisheries and soil and water conservation, as well as the Ecosystem Enhancement Program and components of the Natural Heritage Program.

Rogers had previously

directed the efforts of DENR's One North Carolina Naturally program and has worked as the departments legislative liaison officer.

Also under the DENR reorganization, the position of assistant secretary for planning was revised to be assistant secretary for environment. Robin Smith will work directly with and provide supervision to the divisions of land resources, water quality, waste management, air quality, environmental health and coastal management.

And, the position of assistant secretary for operations and development was revised to be assistant secretary for information systems and CIO. Jimmy Carter will directly supervise information technology functions of the department.

The natural resource divisions – including parks and recreation – are charged with developing a more comprehensive approach to the

management and planning for statewide natural resource conservation. Among the areas to be addressed are:

- Implementing the Stewardship Monitoring Program for all sites under department jurisdiction and which have been certified as open space by a DENR program;

- Identifying opportunities for better collaboration among division-level conservation responsibilities and programs;

- Developing a state-level planning document to guide the conservation of critical natural resources;

- And, developing department-wide procurement recommendations for departmental consideration in submitting grant requests to state funding programs.

Also, two additional planning positions will be established to work with the natural resources team.



TRAILS GRANT AMOUNT MAY BE RAISED

The North Carolina Trails Committee recommended the state raise the maximum amount of grants from its Recreational Trails Program from \$50,000 to \$75,000 at a September meeting at The Summit at Haw River State Park.

The group, a seven-member advisory committee, reviews all applications for the federal grant program that provides funding for trail planning, development and renovation projects. The program is administered by the State Trails Program of the Division of Parks and Recreation.

In North Carolina, the committee administers the federal grant program that provides funding for trail planning and development with staff support from the State Trails Program of the Division of Parks and Recreation.

Trails committee members agreed that raising the grant maximum would help address the growing cost of trail construction and allow applicants to tackle larger projects.

In its last funding cycle, the committee recommended 32 grants totaling \$1.34 million.

The committee also listened to staff reports on how the Federal Energy Regulatory Commission's (FERC) current re-licensing process for electric power companies will affect trail development in several areas of the state.

Under the re-licensing process, utilities are expected to draw plans to enhance recreational opportunities in areas where they operate hydroelectric facilities and maintain reservoirs.

Piedmont trails specialist Kim Douglass said that field studies have been completed on the Yadkin Pee Dee Paddle Trail that stretches from Forsyth County to the South Carolina border. Yadkin Inc. (Alcoa) and Progress Energy have an interest in the corridor as part of the re-licensing process.

Douglass said that Yadkin Inc. will donate \$40,000 to assist with developments of the trail not required by re-licensing and that they will also allocate about \$220,000 to build 10 campsites and rehabilitate four portages at locations yet to be determined.

Progress Energy will donate \$25,000 for trail development. The money will be distributed on recommendations of an oversight committee with representatives from state agencies and non-profit organizations that participated in the re-licensing process.

Western trails specialist Dwayne Stutzman reported that Duke Energy is working with Burke and Caldwell counties, the town of Morganton and



Trails committee met at The Summit center.

the Overmountain Victory National Historic Trail to develop a regional trail system that includes the expanded Lake James State Park and an area adjacent to the Johns River.

This effort will create connections to the Mountains-to-Sea Trail near lake James and again in the Wilson Creek area of the Pisgah National Forest.

Stutzman said that the re-licensing process could result in an estimated 7,000 acres either being donated or offered at bargain prices for conservation and trail development. (This includes 3,000 acres added to Lake James State Park at below appraised value.)

Darrell McBane, chief of the State Trails Program, told the committee that a consortium of interested parties is considering approaching the Golden LEAF fund to help with development of the Mountains-to-Sea Trail through eastern North Carolina.

Wake County, the City of Raleigh, the NCDOT Bicycle and Pedestrian Program and the Friends of the Mountains-to-Sea Trail are involved in the effort, he said.

Golden LEAF was established by the state to distribute monies from a tobacco suit settlement, and priorities for its 2007 funding cycle include tourism, "especially projects that help regional product development related to cultural, heritage, agri-tourism and eco-tourism."

McBane said that those objectives appear to mesh quite well with the potential acquisition of land and development of segments of the trail, and that Golden LEAF could be a source of considerable and consistent funding through counties along the proposed trail corridor.

Last year, the state adopted a formal plan for establishing the trail largely along the Neuse River Corridor and taking advantage of state and federal lands in that area.

RANGERS LEARN TO BE CURATORS, TOO

Are state parks really museums?

Charles Zidar, exhibits coordinator for the state parks system, thinks so. Zidar has begun a training class for rangers, superintendents and other division personnel called "Ranger as Curator" that addresses this question.

"What do we do in our state parks? We educate, research, collect, preserve and exhibit. Museums do the same," he said.

Zidar said his goal is to help parks manage collections in the orderly fashion that museums traditionally maintain. In this way, state parks can preserve and keep track of prized collections that they now have and will continue to accumulate in years to come.

In the early 1990s, the state parks system began incorporating exhibit halls in a series of modern visitor centers being built across the state. These showcase the natural and cultural resources of individual state parks and their regions.

Along with museum-quality exhibits, dioramas and videos, these exhibit halls hold the odd collections of taxidermy mounts, specimens and cultural artifacts that grew along with the parks.

Specimens were most often collected by rangers over the years. Artifacts, photographs and documents were often donated by people in the community.

Zidar had worked for museums for more than 10 years before coming to North Carolina's state parks system, giving him a unique perspective in dealing with state parks



Ranger Jeffrey Turner sorts through old letters and photographs collected at Merchants Millpond State Park.

issues and collections.

The "Ranger as Curator" class has been a popular one, Zidar said, with intense interest coming from parks that have historical collections such as Merchants Millpond, which owns a series of fragile letters, and Dismal Swamp State Natural Area.

Both parks have exhibit halls now in the planning stage and want to organize collections properly from the beginning, Zidar said.

"There are other parks, such as Pettigrew and Fort Macon, that have precious objects that need proper care for this generation and generations to come," he said.

An outgrowth of the class is a series of forms Zidar developed, such as deeds of gift, loan releases and catalog records that will help parks track when and how objects enter and exit their park.

The class itself focuses on taxidermy, collections care and organization, and the national and state laws that

govern such collections. The class also discusses work in archaeology, marine archaeology and paleontology.

"Discussions of taxidermy have been the most popular, since this affects all parks in the state," Zidar said.

A long-term goal is to provide parks with the physical tools to care for collections including thermohygrometers to monitor temperature and humidity and buffered, acid-free paper to protect fragile documents and photographs.

Parks may also be provided with taxidermy kits to help them convey to the public the process of animal preservation.

"North Carolina has been blessed with myriad cultural and natural resources. We must do all that we can to preserve things not only in their natural state, but in our park buildings as well," Zidar said.

(Employees interested in attending the class can check schedules on the division's training calendar.)

MOUNTAIN STREAM GETS MAKEOVER

By Marshall Ellis
Mountain Region Biologist

It's true that Stone Mountain State Park in Wilkes and Alleghany counties is one of those parks where everything is big.

At nearly 14,000 acres, it's one of our biggest parks. And since much of that acreage includes a swath of the Blue Ridge escarpment, it's got some of our biggest scenery. Its namesake granite dome is nearly 600 feet tall, making it one of the biggest of its type in the southeastern United States.

And it doesn't just have trout streams; it's got nearly 20 miles of trout streams.

But if it's also true that good things come in small packages, then Stone Mountain's penchant for gigantism has been complemented recently by a quiet 850-foot stretch along one of those trout streams.

Working with a \$290,000 grant provided by the Clean Water Management Trust Fund, biologists and engineers with the state parks system have now addressed a host of long-simmering ills at three points along Big Sandy Creek, including runaway bank erosion, sedimentation, and the loss of a functioning floodplain.

The project is aimed at restoring the stretch of stream to something akin to its historic look and flow. Sections of streams in the park were altered by agriculture and gravel mining in the years before the state park was created.

The alteration of the stream, with erosion and sedimentation, contribute to poor water quality and degraded



Viewing a section of stream before restoration, above, and afterwards, below, shows how well-placed boulders can help restore the natural look and flow of a mountain stream.



PROTECTING NATURAL RESOURCES

aquatic habitat. Sediment in streams smothers fish eggs, aquatic insects and oxygen-producing plants. And, floodplains are needed to accept excess water during storms. They slow the release of that water and further protect stream banks.

By enhancing the stream corridor with native vegetation and a series of strategically placed log and boulder

structures, engineers will be able to redirect the stream flow so that new aquatic habitat is created, old habitat is restored, and water quality is protected.

After the major work is completed, streamside trees and shrubs are allowed to mature, shading the stream and cooling water temperatures. The cooler water usually results in greater diversity and abundance of fish and other aquatic species.

The Big Sandy project mirrors a much larger project

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STATE PARKS DRAWING RESEARCHERS

The N.C. Division of Parks and Recreation has been very fortunate to have a number of well-respected professionals perform intensive biological inventories in the parks system in recent months.

Intensive lichen studies have been performed at William B. Umstead, Fort Macon and Pilot Mountain state parks. Other studies have included work with moth mosquitoes, beetles and millipedes.

Two especially successful inventories took place at Mount Jefferson State Natural Area and Gorges State Park.

Derick Poindexter, a graduate student at Appalachian State University in Boone, recently completed a floristic survey of Mount Jefferson State Natural Area in Ashe County. Poindexter identified a total of 701 plant species, including nine species previously unrecorded for North Carolina.

He also classified one community type as a high elevation mafic glade. The only other

known site in North Carolina is located nearby at Bluff Mountain. Also, 17 species of rare plants, mosses and liverworts were identified during his fieldwork.

Poindexter studied at Berea College, and gained an interest in floristic surveys under the tutelage of Ralph Thompson. He completed the fieldwork required for this study with virtually no financial assistance.

Another interesting survey for lichens recently wrapped up at Gorges State Park in Transylvania County. James Lendemer of the Academy of Natural Sciences and Erin Tripp of Duke University collected throughout the park, compiling an expansive list of native lichens.

Out of 441 specimens collected, the two scientists identified 212 separate species, including one brand new species in the genus *Gyalectidium*.

The state parks system is looking forward to a number of upcoming projects, including small mammal surveys at piedmont parks, floristic surveys, and aquatic samplings.

BIG SANDY

CONTINUED FROM PAGE 11

undertaken in 1999, when a contiguous stretch of nearly two miles along the East Prong of the Roaring River was restored in similar fashion.

That restoration effort has supported a healthy trout population since the work was done, although this summer, some areas were revisited to tweak the results. That was part of a five-year monitoring program, aided by the Division of Water Quality and the Wildlife Resources Commission.

Taken together, the two projects have significantly improved water quality and aquatic habitat in two important park streams.

At only 2.6 square miles, the watershed that is affected by the latest project is small. But Big Sandy drains the steep slopes below Roaring Gap, home to golf courses and ever increasing residential development.

And since the park boundaries protect only a fraction of this watershed, outside threats to Big Sandy's long-term water quality remain a concern.

This project, although small, is an important step in restoring Big Sandy's capacity for absorbing those threats and ensuring that the park's resources remain protected.



HOME FOR A HAWK

This redtailed hawk was spotted several times this summer perched just outside state parks system offices at the Yorkshire Center on Falls Lake. He apparently grew quite used to parks system employees coming and going and with having his picture taken. (Photo by Emily Parishier)

PROPERTY ADDED TO LOWER HAW SNA

A 40-acre tract on the west side of the Haw River near Bynum in Chatham County has been acquired as an addition to the Lower Haw River State Natural Area.

Triangle Land Conservancy (TLC) and the Haw River Assembly were partners with the state parks system in conserving the land. The Clean Water Management Trust Fund contributed \$155,000 toward the purchase and the Parks and Recreation Trust Fund contributed \$40,000.

The state natural area was created in 2003 when TLC partnered with the state to buy more than 1,000 acres on both sides of the Haw between Bynum and US 64 from Duke University.

The university acquired the property for research in the 1960s, and it has been popular among hikers and canoeists for decades.

The state natural area protects roughly four miles of shoreline on the river that empties into Jordan Lake. The river is home to at least two endangered species: a fish, the Cape Fear shiner, and Septima's clubtail dragonfly.

The Haw River in this area has been identified as a nationally significant aquatic habitat and the riparian lands are designated as a natural area of state significance. Both designations relate to providing habitat for rare native plants and animals.

In the past three years, the conservancy has negotiated on behalf of the state to add land to the state natural area. This is the first project to be completed.

In this partnership, the Bynum-based Haw River Assembly established a relationship with the seller, Charles Stevens, and secured a purchase option. Stevens previously owned Bynum Mill, but never built on the property.

The conservancy performed the administrative and legal work and worked to secure funding from the state trust funds.

Kevin Brice, executive director of TLC, said, "Our goal for the Haw River is to protect

property adjacent to the Bynum dam, will benefit from the protective buffer this property now provides.

The property features a mixed hardwood forest and includes 4,373 linear feet of Haw River frontage. And, it provides another 1,887 feet of stream buffer on Brooks Branch.

As an addition to the state natural area, public trails may be considered on this tract in the future, but no management plans have been completed yet for the natural area.



The state natural area covers over four miles of riverfront.

its floodplains and steep slopes for water quality and flood control. TLC will continue to partner with Chatham County, the Haw River Assembly and the state to make these places safe and enjoyable. In all cases, the landowners who work with TLC will do so on a voluntary basis."

The 40-acre tract lies just upstream of the US 15-501 bridge on the Pittsboro side of the river. Pittsboro's drinking water supply intake, which sites on a small inholding of the

Triangle Land Conservancy's 60 protected sites in Wake, Durham, Orange, Chatham, Johnston and Lee counties encompass more than 8,400 acres including several preserves open to visitors year-round.

The Haw River Assembly has received a grant from the Clean Water Management Trust Fund to administer a program for students from Elon University to monitor and analyze the river in order to create a Lower Haw River Corridor Plan.

‘LIVING GREEN’ AN ATTAINABLE GOAL

By Jackie Nelson
New River Earth Institute

Think “living green” means suffering and doing without modern conveniences?

Not so, according to Gerry Tygielski, who presented a program, “Sustainable Living in the Mountains” at New River State Park recently.

Tygielski, Ashe County resident and president of the New River Earth Institute, spoke to residents and park visitors about concepts, reasons, and options for living that have less of an impact on our environment and natural resources.

Sustainable living is a topic he knows well.

“My wife and I came to this area in 1999, to change our lives, and to seek a better formula for living. We believed that there had to be a better way to live,” Tygielski said. “I walked away from a business that forced me to work 14-16 hours, seven days a week. I was killing myself.”

He set out to build a sustainable home and to develop a small farm to live off the land.

“I wanted to learn all the skills to be able to put a house like this together. The more I explored and the more people I met, the more I found that the solution had to encompass many disciplines and involve everything from site planning to protection of the habitat,” he said.

If you’re expecting Tygielski’s house to resemble a dome, underground bunker, or



Tygielski's program on 'living green' was well attended.

perhaps to be constructed of recycled tires, you’ll be pleasantly surprised.

At first, his spacious home looks just like any modern home, complete with cathedral ceilings, ceiling fans, a modern kitchen, and all the usual amenities. Closer inspection reveals Tygielski has used innovative and sustainable building techniques such as the use of solar and wind power, the use of locally logged wood, and siting that takes advantage of natural light and heating.

“I have found that there are a wide variety of options and opportunities to build homes that are ‘zero net cost’. This means that by implementing the right construction techniques and renewable energy systems, after the initial investment, you can live comfortably for free,” he said.

Tygielski’s project, called Mountain Mission Farms, has turned into an educational center as well. Over 2,000 students (from eight colleges and universities) and visitors from across the United States and seven foreign countries have visited the farm to learn about green

building technology, alternative energy products, and starting sustainable communities in their own areas.

New River Earth Institute allows him to share concepts related to sustainable living.

“Our primary purpose is to help people recognize their impact on the earth, to take responsibility for their actions, and to make a positive commitment for change,” he said.

The group accomplishes this primarily through encouraging community participation in a series of free courses.

This is a labor of love for Tygielski, who feels that we are putting future generations at risk by our actions today. “It’s the right thing to do,” he said.

Ranger Doug Blatny said at the end of the program “I’m excited to see so many people attend such an important program and show such enthusiasm for such an important topic. This shows that like-minded people can come together, learn from each other, and take with them the lesson of stewardship of our natural resources.”

North Carolina State Parks

Monthly Attendance Report

August, 2006

PARK	AUGUST 2006	TOTAL YTD AUG. 2006	AUGUST 2005	TOTAL YTD AUG. 2005	% CHANGE (2005/2006)	
					AUG.	YTD
Carolina Beach	25,577	174,022	20,512	175,230	25%	-1%
Cliffs of the Neuse	13,377	80,500	10,376	71,722	29%	12%
Crowder's Mountain	27,364	243,741	26,932	235,212	2%	4%
Dismal Swamp	5,500					
Eno River	30,341	216,452	27,360	224,569	11%	-4%
Falls Lake	124,681	762,677	121,605	706,566	3%	8%
Fort Fisher	79,470	496,712	33,169	493,402	140%	1%
Fort Macon	131,248	944,920	160,954	922,098	-18%	2%
Goose Creek	9,876	74,491	12,359	101,279	-20%	-26%
Gorges	17,663	83,369	13,118	92,627	35%	-10%
Hammocks Beach	14,544	92,679	17,643	104,070	-18%	-11%
Hanging Rock	39,010	306,281	46,810	264,092	-17%	16%
Haw River State Park						
Jockey's Ridge	154,785	788,559	168,082	768,274	-8%	3%
Jones Lake	6,960	51,221	8,484	57,293	-18%	-11%
Jordan Lake	119,084	758,985	261,672	1,214,831	-54%	-38%
Kerr Lake	151,396	933,512	208,404	1,327,020	-27%	-30%
Lake James	101,361	503,894	40,133	289,613	153%	74%
Lake Norman	43,188	353,556	51,606	346,230	-16%	2%
Lake Waccamaw	12,132	73,162	7,548	64,534	61%	13%
Lumber River	7,952	53,822	7,410	42,206	7%	28%
Medoc Mountain	5,060	37,996	4,312	33,384	17%	14%
Merchant's Millpond	16,382	127,393	22,764	161,328	-28%	-21%
Morrow Mountain	34,500	239,942	24,040	146,130	44%	64%
Mount Jefferson	10,472	57,284	11,412	53,729	-8%	7%
Mount Mitchell	39,376	183,436	34,922	142,993	13%	28%
New River	26,166	169,444	20,332	101,215	29%	67%
Occoneechee Mountain	4,623	38,902	4,446	35,861	4%	8%
Pettigrew	7,287	53,034	6,825	53,937	7%	-2%
Pilot Mountain	34,445	253,411	39,703	268,828	-13%	-6%
Raven Rock	7,932	64,989	7,595	72,832	4%	-11%
Singletary Lake	3,275	25,751	4,842	31,920	-32%	-19%
South Mountains	16,928	144,510	14,974	139,318	13%	4%
Stone Mountain	39,468	277,292	38,148	263,816	3%	5%
Weymouth Woods	3,857	31,508	3,522	29,374	10%	7%
William B. Umstead	54,395	418,662	51,495	406,679	6%	3%
SYSTEMWIDE TOTAL	1,419,675	9,116,109	1,533,509	9,442,212	-7%	-3%



Our Mission Remains...

to protect North Carolina's **natural diversity**;
to provide and promote **outdoor recreation**
opportunities throughout North Carolina;
to exemplify and encourage **good stewardship**
of North Carolina's natural resources for all
citizens and visitors.

*8,000 copies of this public document were printed
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SAFETY ZONE

TEAM UP FOR SAFETY'S SAKE

- ✓Communicate regularly with coworkers to maintain safety.
- ✓Notify all coworkers about hazards, especially new ones.
- ✓Be aware of your surroundings, what's going on around you and the location of coworkers.
- ✓Take safety training seriously; your safety and the safety of others depend on it.



The Steward

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